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# CENSUS REPORTS

## VOLUME VII

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TWELFTH CENSUS OF THE UNITED STATES,  
TAKEN IN THE YEAR 1900

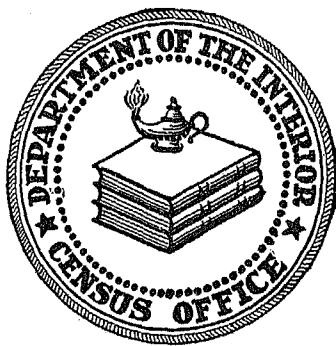
WILLIAM R. MERRIAM, DIRECTOR

# MANUFACTURES

PART I

UNITED STATES BY INDUSTRIES

PREPARED UNDER THE SUPERVISION OF S. N. D. NORTH,  
CHIEF STATISTICIAN FOR MANUFACTURES



WASHINGTON  
UNITED STATES CENSUS OFFICE  
1902

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## LETTER OF TRANSMITTAL.

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### DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

Washington, D. C., June 15, 1902.

I have the honor to transmit herewith Part I of the Report on Manufactures for the Twelfth Census. This volume contains the introductory text summarizing and analyzing the statistics of manufactures and ancillary industries, and also the general tables which embody these statistics for the United States, by states, industry groups, and by specified industries.

The introductory text consists of five chapters: Chapter I is confined to a descriptive statement of the plan, and methods of the manufacturing census, the increasing difficulties which attend the taking of such a census, and some discussion of the census law. This chapter concludes with a section contributed by Hon. Willard D. Wright, United States Commissioner of Labor, on the importance of correlation between the work of the permanent Census Office and of the several state bureaus. The second chapter of the introductory text is a summary and analysis of the general results of the manufacturing census and their proper interpretation. The third chapter is an analysis of the statistics of manufactures in cities, contributed by Mr. William M. Steuart, chief of division. The fourth chapter is an analysis of the statistics of power as employed in manufactures, contributed by Expert Special Agents Edward H. Sanborn, of Philadelphia, and T. C. Martin, of New York. The fifth chapter is an explanation of the general tables which immediately follow it.

Part II of the Report on Manufactures, transmitted on March 19, contains the statistics of manufactures of mechanical industries in the several states and territories, and in their several subdivisions, comprising industries and cities. The presentation of the statistics of this part is accompanied by a descriptive and historical account of the development of manufactures in each state and territory.

Part III of the Report on Manufactures contains monographs prepared by expert special agents, and by others of the clerical force of the division of manufactures, on certain selected industries. The reports in Part III relate to the textile industries; the manufacture of food products; the lumber industry, and the manufacture of turpentine and rosin; the manufacture of clay and pottery products, and of glass; the manufacture of leather, and of boots and shoes; the manufacture of paper and pulp; and printing and publishing.

Part IV of the Report on Manufactures contains monographs prepared by expert special agents and others on selected industries whose chief raw material is one or another of the metals; and also upon the manufacture of chemicals; coke; petroleum; manufactured gas; wastes and by-products in manufactures; and upon patents bearing relation to manufactures.

A special report on comparative rates of wages in 1890 and 1900, prepared by Expert Special Agent Davis R. Tracy, Ph. D., of the Institute of Technology, Boston, Mass., and based upon actual transcripts of pay rolls in two years, will be published as a supplemental volume of the Report on Manufactures.

In transmitting the final results of the Twelfth Census of Manufactures, it is a pleasure to acknowledge the services of those assistants who, in cooperation with an exceptionally efficient clerical force, have made possible the completion of the work within the time limit set by the law—an achievement unprecedented in census work. William M. Steuart has been expert chief of division from the beginning of the work, and his experience, gained in two prior censuses, has been of the utmost value at all stages. Mr. Frank L. Sanford has had charge of the work of classification; and all of the final results, both in the office work and the work of the expert special agents, have gone to the printer under his immediate supervision. Mr. Joseph D. Lewis has had charge of the important work of the revision of the returns, and has rendered expert assistance in the preparation of many

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of the reports on selected industries. Both Mr. Sanford and Mr. Lewis were connected with the division of manufactures of the Eleventh Census. Mr. Arthur L. Hunt has acted as assistant chief of division, and had general supervision over the special reports prepared in the division. Mr. Ralph M. Greenlaw has had charge of the field work and of the tabulation of the returns. Frederick S. Hall, William A. Countryman, and Elbert H. Loyd have contributed important portions of the text of various reports and critical analyses of results. Acknowledgment of valuable assistance rendered should, in strict justice, be extended to many other members of the force.

Very respectfully,



*Chief Statistician for Manufactures.*

Hon. WILLIAM R. MERRIAM,  
*Director of the Census.*